

RECEIVED
CENTRAL FAX CENTER
JUN 17 2008
Serial No. 10/537,769

IN THE CLAIMS:

The following listing of claims replaces all prior versions and listings of claims in the present application:

Listing of Claims:

1. Cancelled

2. (Currently Amended) The method as claimed in claim 4 8, characterized in that further including the following step
(S5) outputting the result of the assessment is output to a vehicle user.

3. (Currently Amended) The method as claimed in claim 4 8, characterized in that wherein
the assessment of the state of charge in steps S3-1 to S3-3 is carried out by association of the minimum voltage level with one of at least two predetermined state of charge ranges.

4. (Currently Amended) The method as claimed in claim 3, characterized in that wherein
three predetermined state of charge ranges (BZ1, BZ2, BZ3) are formed, and are defined by two threshold values (V1, V2).

5. (Currently Amended) The method as claimed in claim 3, characterized in that wherein
the three predetermined state of charge ranges are the "very powerful" (BZ1), "powerful" (BZ2) and "restricted power" (BZ3) states of charge.

6. (Currently Amended) The method as claimed in claim 2, characterized in that wherein
the result of the assessment in step S5 is output visually.

Serial No. 10/537,769

7. (Currently Amended) The method as claimed in claim 5, characterized in that further comprising:

(S5) outputting the result of the assessment is output to a vehicle user, and visually producing the result of the assessment in step S5 is produced visually in the form of different colors for the three states of charge "restricted power" (BZ3), "powerful" (BZ2) and "very powerful" (BZ1).

8. (Currently Amended) The A method as claimed in claim 1, characterized in that, for battery state identification for a motor vehicle, comprising the following steps:

(S1) measuring a voltage of a motor vehicle battery during the starting process of a motor vehicle over a predetermined time period;

(S2) determining a minimum voltage level of the motor vehicle battery during the predetermined time period of the measurement process;

(S3-1 to S3-3; S3-0 to S3-3*) assessing a state of charge of the motor vehicle battery on the basis of the determined minimum voltage level; and,

(S4-1 to S4-3) controlling a generator as a function of the assessment of the state of charge of the motor vehicle battery, so as to ensure an adequate supply for the vehicle power supply system and adequate charging of the motor vehicle battery, while at the same time optimizing the fuel consumption and the emissions; and wherein

in step S4-3, predetermining a nominal value of the charging voltage is predetermined for a normal charging level for an unlimited time for the generator (4) for a state of charge is "restricted power" (BZ3) state of charge.

in step S4-2, predetermining a nominal value of the charge voltage for engine load reduction, followed by the nominal value of the charging voltage for the normal charging level are predetermined for a predetermined time period for the generator (4) for a "powerful" (BZ2) state of charge, and

in step S4-1, predetermining the nominal value of the charging voltage is predetermined for the value for engine load reduction, followed by a reduced vehicle power supply system level and then a recuperation level over a predetermined time period for the generator (4) for a "very powerful" (BZ1) state of charge.

Serial No. 10/537,769

9. (Currently Amended) The method as claimed in claim 4 8, characterized in that wherein,

in steps S4-1 to S4-3, the generator is controlled as a function of the assessment of the state of charge of the motor vehicle battery (5) and of at least one further parameter in the steps S3-0 to S3-3*, in order to ensure adequate charging of the motor vehicle battery (5), and at the same time to optimize the fuel consumption and the emissions.

10. (Original) The method as claimed in claim 9, characterized in that the at least one further parameter is the ambient temperature (T).

11. (Currently Amended) ~~The A~~ method as claimed in claim 10, characterized in that, for battery state identification for a motor vehicle, comprising the following steps:

(S1) measuring a voltage of a motor vehicle battery during the starting process of a motor vehicle over a predetermined time period;

(S2) determining a minimum voltage level of the motor vehicle battery during the predetermined time period of the measurement process;

(S3-1 to S3-3; S3-0 to S3-3*) assessing a state of charge of the motor vehicle battery on the basis of the determined minimum voltage level; and,

(S4-1 to S4-3) controlling a generator as a function of the assessment of the state of charge of the motor vehicle battery, so as to ensure an adequate supply for the vehicle power supply system and adequate charging of the motor vehicle battery, while at the same time optimizing the fuel consumption and the emissions; and wherein:

in steps S4-1 to S4-3, the generator is controlled as a function of the assessment of the state of charge of the motor vehicle battery and of at least the ambient temperature in the steps S3-0 to S3-3*, in order to ensure adequate charging of the motor vehicle battery, and at the same time to optimize the fuel consumption and the emissions;

Serial No. 10/537,769

in step S4-3, a nominal value for the charging voltage for the normal charge level is predetermined for an unlimited time, irrespective of the temperature, for the generator (4) irrespective of the assessed state of charge for a temperature below a first temperature threshold value (Ts1) (step S3-0) and for a "restricted power" (BZ3) state of charge (step S3-1*),

in step S4-2, a nominal value of the charging voltage for engine load reduction, followed by the nominal value of the charging voltage for the normal charge level are predetermined over a predetermined time period for the generator (4) for a "powerful" (BZ2) state of charge (step S3-2*) and a temperature above the first temperature threshold value (Ts1) (step S3-0),

In step S4-1 the nominal value of the charging voltage for engine load reduction is predetermined for a predetermined time period, after which a nominal value of the charging voltage for a reduced vehicle power supply system level, followed by a nominal value of the charging voltage for the recuperation level are predetermined for a predetermined time period for the generator (4) for a "very powerful" (BZ1) state of charge (step S3-1*) and a temperature above the first temperature threshold value (Ts1) (step S3-0) and below a second temperature threshold value (Ts2) (step S3-1*), and

in step S4-3, the nominal value of the charging voltage is predetermined for the normal charging level for an unlimited time for the generator (4) for a "very powerful" (BZ1) state of charge and a temperature above the second temperature threshold value (Ts2) (step S3-3*).

12. (Currently Amended) The method as claimed in claim 11, characterized in that wherein the first temperature threshold value (Ts1) is 0°C, and the second temperature threshold value (Ts2) is 25°C.

13. Cancelled

14. (Currently Amended) The apparatus as claimed in claim 17-13, characterized in that wherein

Serial No. 10/537,769

a display device is provided, on which the state of charge is displayed to the vehicle user (as determined by the device (7), for assessment of the state of charge of the motor vehicle battery (5)) in different colors for each state of charge.

15. Cancelled

16. Cancelled

17. (Currently Amended) ~~The An apparatus as claimed in claim 16, characterized in that for battery state identification for a motor vehicle, comprising:~~

a device for measurement of a voltage of a motor vehicle battery during the starting process of a motor vehicle over a predetermined time period;

a device for determination of a minimum level of the motor vehicle battery during the predetermined time period of the measurement process;

a device for assessment of a state of charge of the motor vehicle battery on the basis of the determined minimum voltage level;

a device for controlling a generator as a function of the assessment of the state of charge of the motor vehicle battery such that an adequate supply is ensured for the vehicle power supply system and adequate charging of the motor vehicle battery is ensured, with the fuel consumption and the emissions being optimized at the same time; and,

a device for measurement of the ambient temperature, whose measurement result is taken into account by the device for controlling the generator, in addition to the result of the assessment of the state of charge; and wherein,

the device (7) for controlling the generator

- predetermines a nominal value of the charging voltage for the normal charging level for an unlimited time, irrespective of the temperature, for the generator irrespective of the assessed state of charge for a temperature below a first temperature threshold value (Ts1) and for a "restricted power" (BZ3) state of charge,
- predetermines a nominal value of the charging voltage for engine load reduction, followed by the nominal value of the charging voltage for the normal

Serial No. 10/537,769

charge level for a predetermined time period for the generator for a "powerful" (BZ2) state of charge and a temperature above the first temperature threshold value (Ts1),

- predetermines the nominal value of the charging voltage for engine load reduction over a predetermined time period, then a nominal value of the charging voltage for a reduced vehicle power supply system level, followed by a nominal value of the charging voltage for the recuperation level for the generator for a "very powerful" state of charge (BZ1) and a temperature above the first temperature threshold value (Ts1) and below a second temperature threshold value (Ts2), and

- predetermines the nominal value of the charging voltage for the normal charging level for an unlimited time for the generator for a "very powerful" (BZ1) state of charge and a temperature above the second temperature threshold value (Ts2).